SERVICE

Whirlpool Europe
Customer Services

TRK4850WS-NL

Bauknecht

Service Manual

Tumble dryer
Condensation
TRK4850WS-NL

Model TRK4850WS-NL
Version 8560 485 12000

Date: 07.11.1996
Document-No.: 4812 713 10905

Subject to modification

Technical data

Dimensions

Height	85,0	cm
Width	59,5	cm
Depth	60,0	cm

Weight

Gross weight	42	kg
Net weight	40	kg

Surroundings temperature

Max.room temperature	35	°C
Min. room temperature	5	°C

Humidity

Max. relative humidity	95	%

Power connection

Voltage	230	V
Frequency	50	Hz
Connected load	2,8	kW
Fuse	16	A

Drum data

Volume	112	l
Drum speed	57 ± 2	rpm

Airflow

Circulation air flow	180± 20	m^3 /h
Cooling air flow	180± 20	m^3 /h

Capacity of laundry

Cotton max.	5	kg
Easy care max.	2,5	kg

Condenswater evacuation

Condenswater container	3,5	l
Direct connection to the drainage		
1. Possibility:	Use a commercially available water hose	
Inner diameter	8 - 10	mm
Maximum allowable length	2,5	m
Maximum height for drain outlet	1,0	m
2. Possibility:	Outlet hose for connect into siphon	
Spare part number	4812 530 28243	
Length of hose	1,5	m

Electrical components

Heating

Type	1211 K (open coil)	
Nominal voltage	230	V
Nominal power (1450 + 1050 W)	2500± 5%	W
Heating resistances:		
Connectin points 8-9 (1450 W)	32,8± 5%	Ω
Connectin points 8-4 (1050 W)	45,3± 5%	Ω

Thermostats

Fluff thermostat (in heater) TH 1.2

Measurable between	1-3 or 2-3	
Switch on temperature	70+10/-5	°C
Switch off temperature	117± 4	°C

Gentle thermostat (in heater) TH 1.3

Measurable between	4-7 or 5-7	
Switch on temperature	90± 4	°C
Switch off temperature	105± 2	°C

Technical data

Internal safety thermostat (in heater) TH 1.4

Measurable	only via heater resistor	
Switch on temperature	100± 6	°C
Switch off temperature	150± 5	°C

Safety thermostat (on bulkhead) TH 1.5

Switch on temperature	manual reset	
Switch off temperature	125± 5	°C

Exhausting thermostat (in airchannel) TH 1.1

Switch on temperature	70± 4	°C
Switch off temperature	85± 3	°C

Timer

Type	Electronic Timer Eaton SL49WR2 3202	
Nominal voltage	230	V
Frequency	47-63	Hz
Rated currents:		
Motor	≤ 6	A
Heater	≤ 16	A
Drumlight	≤ 0.1	A
Pump	≤ 6	A
Ambient temperature	0 to 75	°C
Storage temperature	-25 to 85	°C

Main- and blower motor

Type	1-phase asynchronous	
Nominal voltage	230	V
Frequency	50	Hz
Power consumption	285± 7%	W
Resistances of coils		
Main coil (2-3)	16± 7%	Ω
Auxiliary coil (3-4)	16± 7%	Ω
Rated speed with 5 kg laundry and 100% rest humidity	2700	rpm
Capacitor	10± 10%	µ F

Condensation pump

Type	1-phase synchronous motor MES 30.95630...	
Voltage	230	V
Frequency	50	Hz
Resistance	450± 10%	Ω
Nominal current	53	mA
Blocking current	140	mA
Power consuption	14± 2	W
Speed	3000	rpm
Capacity	2,6± 1,1	l/min

Display

BK display module Low-5	EATON MV19BT1R2916
No. of LEDs	12
Buttons	- START - Gentle - Plus - Rapid - Buzzer - Anticreasing extended
Program selector	16 positions integrated ON/OFF contact 24V AC

Radio interference filter

Typ	Eichhoff BV 16.350/122	
Voltage	230	V
Capacity	0,1 µ F + 2x0,015µ F X1Y+1MΩ	

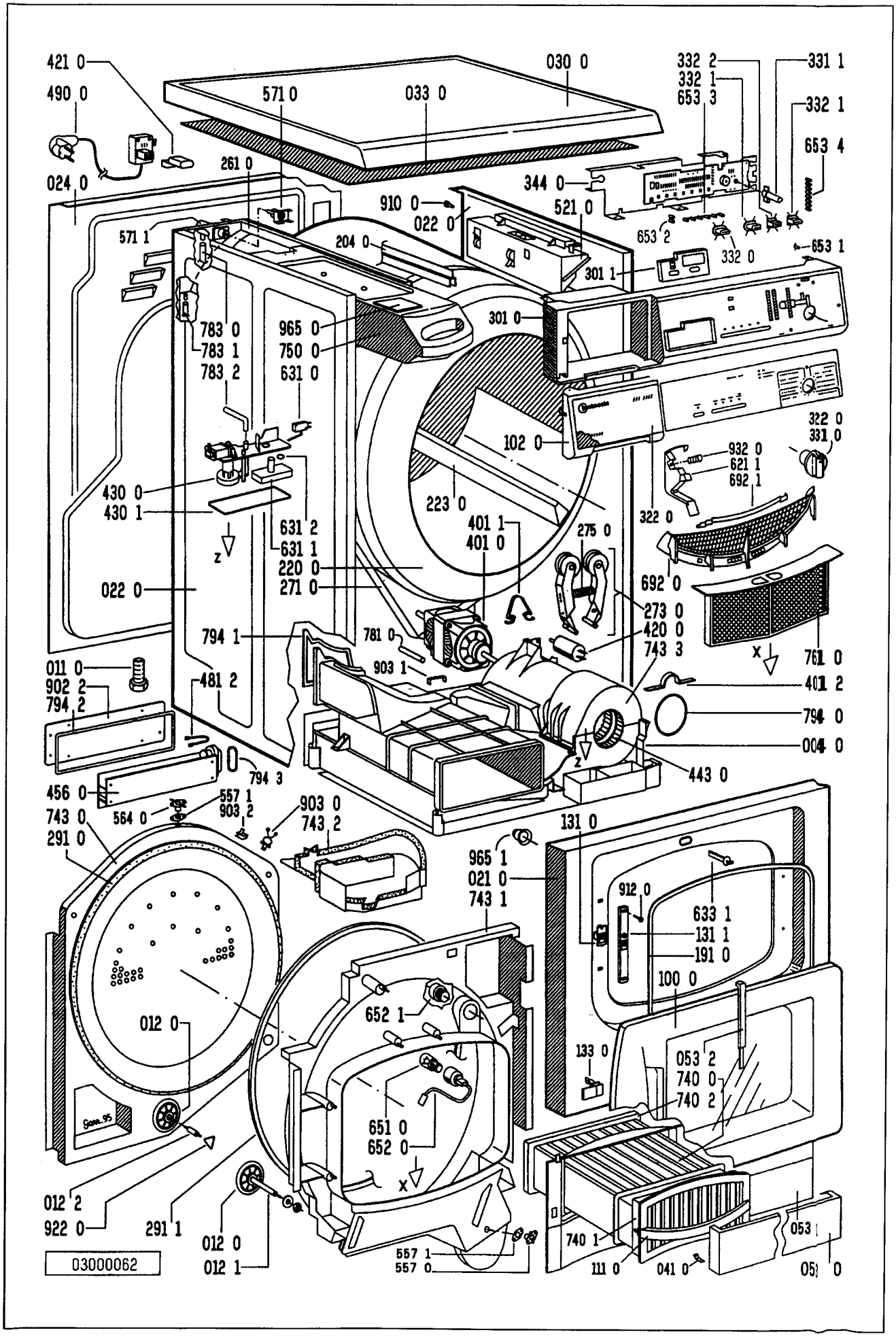
Spare part list

Model **TRK 4850WS-NL**
Service No. **856048512000**
Version **856048512000**

Pos. No.	12NC Code	Description
004 0	**4812 440 18571**	Bottom
011 0	**4812 500 18054**	Foot adjustable
012 0	**4812 528 78033**	Roll
012 1	**4812 520 28039**	Shaft front
012 2	**4812 520 28041**	Shaft rear
021 0	**4812 440 18927**	Front
022 0	**4812 440 18926**	Panel,side
024 0	**4812 440 18928**	Panel, rear
030 0	**4812 440 19399**	Table top
033 0	**4812 440 18568**	Plate
041 0	**4812 417 18341**	Hinge
053 0	**4812 440 19336**	Plinth metal
053 1	**4812 440 18575**	Plinth plastic
053 2	**4812 417 28042**	Lever,fastener plinth
100 0	**4812 417 38015**	Door
102 0	**4812 452 19382**	Door,flap
111 0	**4812 401 48568**	Grip Heatexchanger
131 0	**4812 271 38362**	Door lock
131 1	**4812 417 18797**	Cover plate
133 0	**4812 417 28054**	Pin door
191 0	**4812 466 68461**	Gasket, door
204 0	**4812 466 38009**	Protection
220 0	**4812 418 18177**	Drum CPL.
223 0	**4812 418 88017**	Drum lifter
261 0	**4812 418 78041**	Case
271 0	**4812 358 18052**	Belt
273 0	**4812 358 18055**	Pulley jokey
275 0	**4812 492 68129**	Spring
291 0	**4812 466 68521**	Gasket Drum rear
291 1	**4812 466 68519**	Gasket Drum front
301 0	**4812 452 19381**	Control panel
301 1	**4812 452 19367**	Frame
322 0	**4812 452 19389**	Insert panel TRK 4850 NL
331 0	**4812 413 48222**	Knob
331 1	**4812 413 48239**	Adapter
332 0	**4812 276 18259**	Button start
332 1	**4812 276 18262**	Button
332 2	**4812 276 18263**	Button
344 0	**4812 214 78163**	Display board
401 0	**4812 361 18188**	Motor
401 1	**4812 401 18226**	Clamp Motor
401 2	**4812 401 18229**	Clamp motor support
420 0	**4812 121 18144**	Capacitor 10ÜF
421 0	**4812 121 18155**	Interf.filter
430 0	**4812 360 18079**	Pump condens water
430 1	**4812 466 28104**	Gasket
443 0	**4812 361 18189**	Fan wheel
456 0	**4812 259 38169**	Heating element 2500W
481 2	**4812 323 18001**	Shunt
490 0	**4812 321 18019**	Cable,mains 5m (without plug)
490 0	**4812 321 18026**	Cable,mains 3m
521 0	**4812 310 18369**	Power Card-Kit
557 0	**4812 271 28209**	Thermostat
557 1	**4812 530 58069**	Gasket
564 0	**4812 271 28213**	Thermostat

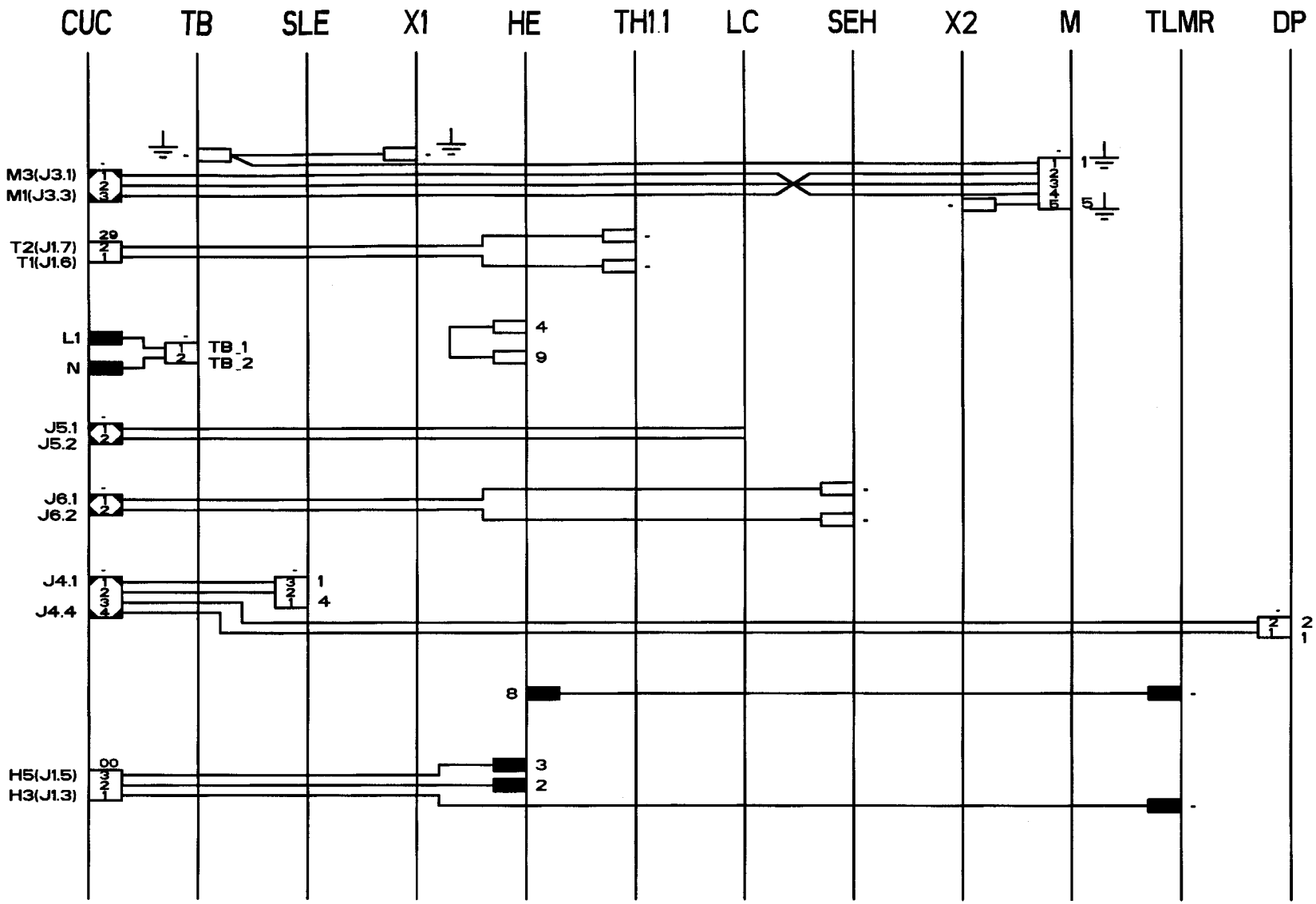
Pos. No.	12NC Code	Description
571 0	**4812 360 58103**	Valve
571 1	**4812 360 58102**	Valve body
621 1	**4812 270 18001**	Lever for Doorswitch
631 0	**4812 271 38076**	Microswitch
631 1	**4812 360 18076**	Floater
631 2	**4812 360 58104**	O-Ring
633 1	**4812 276 18223**	Pin
651 0	**4819 134 88106**	Lamp E14-220V 15W
652 0	**4812 134 28056**	Holder,lamp
652 1	**4812 134 28055**	Cover f. lamp
653 1	**4812 134 48213**	Light guide on/off
653 2	**4812 134 48209**	Light guide
653 3	**4812 134 48211**	Light guide vertical
653 4	**4812 134 48212**	Light guide horizontal
692 0	**4812 480 58067**	Grille with humidity sensor
692 1	**4812 278 58001**	Sensor
740 0	**4812 511 48179**	Condenser
740 1	**4812 310 38184**	Frame
740 2	**4812 310 38064**	Frame
743 0	**4812 530 48152**	Conveyor
743 1	**4812 530 48122**	Air guide f.drumlight
743 2	**4812 530 48127**	Cover bar
743 3	**4812 464 48092**	Fan box
750 0	**4812 418 78044**	Tank Condenswater
761 0	**4812 480 58071**	Filter FLUFF
781 0	**4812 530 28243**	Hose,draining external 1,5 m
783 0	**4812 530 28803**	Hose 0,98 m
783 1	**4812 530 28745**	Hose 1,37 m
783 2	**4812 530 28802**	Hose 0,73 m
794 0	**4812 466 28105**	O-Ring
794 1	**4812 466 28103**	Gasket heater channel
794 2	**4812 466 98935**	Sealing Heater holder
794 3	**4812 466 98936**	Sealing
902 2	**4812 256 98015**	Heating element holder
903 0	**4812 532 28028**	Clip,fix
903 1	**4812 401 18228**	Fastener
903 2	**4812 401 18195**	Clip
910 0	**4812 502 38057**	Screw Torx 4,2 x 13
912 0	**4812 502 48015**	Screw
922 0	**4812 532 58005**	Ring,circlip Triring
932 0	**4812 278 18001**	Spring
965 0	**4812 440 19339**	Lid
965 1	**4812 462 79651**	Cap Frosty

Exploded view



Wiring diagram

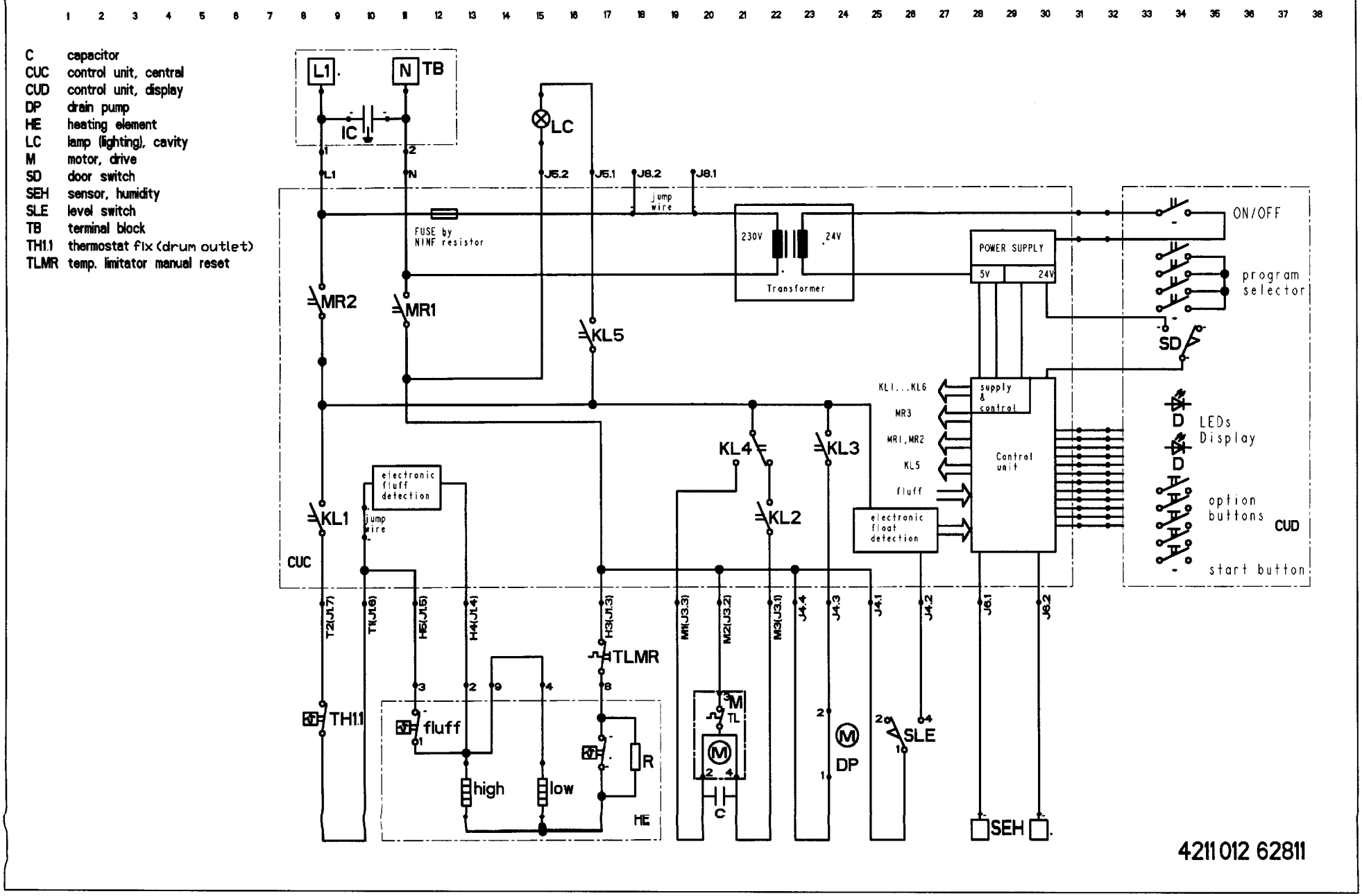
00 black
11 brown
22 red
33 orange
44 yellow
55 green
66 blue
77 violet
88 grey
99 white
29 pink



4211 012 62821

Circuit diagram

C	capacitor
CUC	control unit, central
CUD	control unit, display
DP	drain pump
HE	heating element
LC	lamp (lighting), cavity
M	motor, drive
SD	door switch
SEH	sensor, humidity
SLE	level switch
TB	terminal block
TH1.1	thermostat fix (drum outlet)
TLMR	temp. limitator manual reset

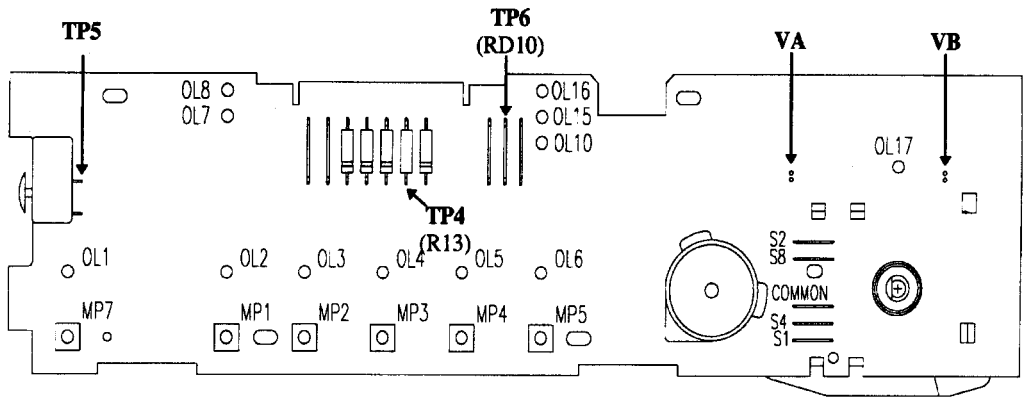


Text/Legend

Testpoints at display boards 4619 710 25671

Module No.: 12NC 4619 710 25671 and 12NC 4619 710 23601

All names are printed at the PCB!



Testvoltages: TP6 (at RD19) = GND
TP4 (at RD27) = +5V to GND
TP5 (at RD23) = +24V to GND

Program selector TP VA <=> VB:
Position OFF 24V AC
Position ON 0V

Function of buttons

Functions when button available:

MP7	Start button
MP1	Gentle option
MP2	Plus option
MP3	Rapid option
MP4	Buzzer option
MP5	Anticreasing extendedoption(ACX)

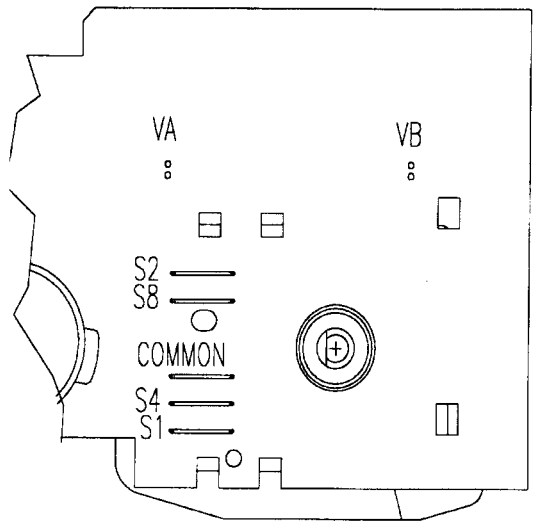
Function of LEDs

Functions when LEDs available:

Options:	OL2	Gentle LED
	OL3	Plus LED
	OL4	Rapid LED
	OL5	Buzzer LED
	OL6	ACX LED
Faults:	OL8	Fluff-filter failure LED
	OL7	Water container LED
Program flow:	OL1	Start LED
	OL10	Drying LED
	OL15	Cool Down LED
	OL16	End LED
	OL17	ON LED

Text/Legend

Program selector 4619 710 25671



Coding of Bauknecht selector (16 positions)

Contact to common: ○ = no contact
● = contact

Position	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
S1	○	●	●	○	○	●	●	○	○	●	●	○	○	●	●	○
S2	○	○	●	●	●	●	○	○	○	○	●	●	●	●	○	○
S4	○	○	○	○	●	●	●	●	●	●	●	●	○	○	○	○
S8	○	○	○	○	○	○	○	○	●	●	●	●	●	●	●	●

Text/Legend

4619 710 25661

Program Flow Condense Dryer Module 12NC 4619 710 25661

Program phase	Options influenzing program phase	Motor move-ment	Heating cycles				Pump cycle	Humidity measure-ment	Duration	Conditions to go in the next phase
			Cotton	Easy-Care	Time drying	Delicate				
Programming										
Start delay	ACX	rev-1	-	-	-	-	1 time pumping		1 ... 9 h	push start switch
	other options	no rev.	-	-	-	-				user IO actions OR delay time over
Drying I	GENTLE	rev-3	RCA	RCA	-	-	standard	on	till RH = condense dryeer HT1	
	RAPID	no rev.	100%	-	-	-	standard	on	till RH =condense dryer HT1	
	other options	rev-3	RCA	RCA	DHT	DHT	standard	on	till RH = condense dryer HT1	Condense Dryer HT 1 OR duration OR timeout 140'
Drying II	GENTLE	rev-3	GHT	GHT	-	-	standard	on	till RH = condense dryer HT2	
	RAPID	no rev.	100%	-	-	-	standard	on	till RH = condense dryer HT2	
	other options	rev-3	RCA	RCA	DHT	DHT	standard	on	till RH = condense dryer HT2	Condense Dryer HT 2
Drying III	GENTLE	rev-3	DHT	DHT	-	-	standard till pumpstop	on	till RH target	
	RAPID	rev-3	GHT	-	-	-	standard till pumpstop	on	till RH target	
	other options	rev-3	GHT	GHT	DHT	DHT	standard till pumpstop	on	till RH target	selected humidity OR duration OR timeout 90' (DRII + DRIII together)
Drying III	PLUS	rev-3	DHT	DHT	-	-	standard till pumpstop	on	6 min for cotton 3 min for all others	
Cool down		rev-3	-	-	-	-	1 time pumping		9 min	
Anticreasing I	Buzzer	rev-4							10 min	duration
	other options	rev-4							10 min	
Anticreasing II	other options	rev-5							1 h	duration
	ACX	rev-5							1 h	
		rev-1							3 h	
		rev-6							8 h	duration OR deselection of ANTICREASING
Drying end									unlimited	

RCA (Heater Cycle A) = 82"ON / 8"OFF **GHT (Gentle Heater Time) = 70" ON / 20"OFF**

DHT (Dynamic Heater Time) = 60"ON / 30"OFF

HT 1 = 18% RH **HT 2 = 13% RH** **RH = Relative Humidity**

Reversing type	cw	off	ccw	off
rev-1	10	350	10	350
rev-2	88	2	88	2
rev-3	80	2	6	2

Reversing type	cw	off	ccw	off
rev-4	45	45	45	45
rev-5	10	80	10	80
rev-6	10	710	10	710

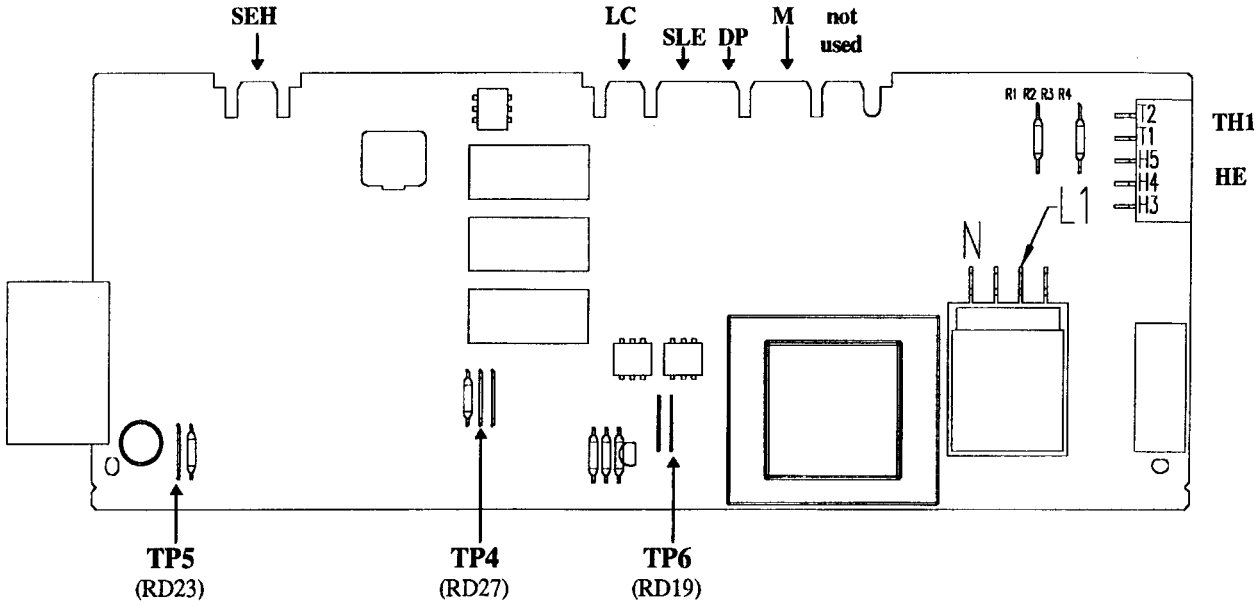
All times in seconds

Text/Legend

4619 710 25661

Testpoints at central board

All names are printed at the PCB!



Testvoltages: TP6 (at RD19) = GND
TP4 (at RD27) = +5V to GND
TP5 (at RD23) = +24V to GND

Entering the Test Mode

a) Rotate program selector clockwise to position 1
b) Push the START switch.
c) Press option button 'GENTLE' and hold till **d)** is ready.
d) ① Rotate program selector clockwise to position 2 and counterclockwise back to position 1
② Rotate program selector clockwise to position 2 and counterclockwise back to position 1
Actions ① & ② have to be done within **5 sec.** (limit controlled by software).
e) Release GENTLE button.

If the sequence a) - e) is correct te following signal is displayd:

LED group:	**Behaviour:**
Alarm LEDs	Flashing alternating
Program sequence LEDs	Flashing alternating to 'Humidity LEDs'
Humidity LEDs	Flashing alternating to 'Program Sequence LEDs'
Option LEDs	OFF
Display (7-segment)	OFF
Buzzer signal	3x BEEP

General: during test program, when the fluff filter thermostat is open, the fluff fault LED is switched ON and keeps being ON after thermostat closing till the end of the test program.

Text/Legend

4619 710 25661

Start the Service Test Program

1. Turn the program selector clockwise into **position 4**
2. Press 'GENTLE' option button.

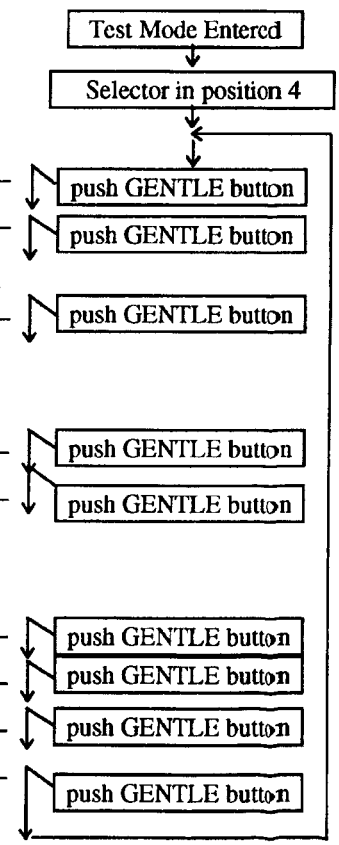
Leaving the Test Mode / Stop the Service Test Program

The TEST MODE is terminated by pushing the startbutton or interupt the mains supply for more than 60 sec.
Turn the program selector out of its current position will stop the testprogram.

After Sales Service Test Program

The test program works sequential, that means the change from one program step to the next has to be done only by request of pushing the 'GENTLE' button!
Every push is receipt by a 'BEEP' of the buzzer

Program step No. Condenser	Tested component:	Description:
1	Motor CW	Motor CW ON
2	Heating element Full Power	Motor CW ON Heating element FULL POWER ON
3	Heating element Reduced Power	Motor CW ON Heater GENTLE POWER ON Heater 70 sec. ON / 20 sec. OFF
4	Pump	Pump ON
5	Float switch	Fill in water till Float Switch switches When switched: LED float ON PUMP ON
6	Motor CCW	Motor CCW ON
7	Humidity measurement	Description see below
8	Display and Buttons	Description see below



Text/Legend

4619 710 25661

Humidity Measurement Test (Step 7 of test program)

Before test please remove SEH and plug in test cable set part No . 4812 321 28156 and RWE-Tester part No. 4812 069 52922

Max. duration: **no limit**
Description:
- Resistors have to be connected at the humidity sensor.
- The electronic control measures the value at the humidity sensor within some seconds.
- LEDs indicate the measured humidity level due to the following table.

Measured level (% RH)	GENTLE LED	Fluff Filter LED	END-LED		Resistances	for RH
< 22% ... > 21% RH	ON	OFF	OFF			
< 21% ... > 20% RH	ON	OFF	ON		250 kOhm	20.5 %
< 20% ... > 19% RH	ON	OFF	OFF			
< 19% ... > 12% RH	OFF	OFF	OFF	**Test OK**		
< 12% ... > 11% RH	OFF	ON	OFF			
< 11% ... > 10% RH	ON	ON	OFF		1130 kOhm	10.5 %
< 10% ... > 9% RH	OFF	ON	OFF			
9% > RH	OFF	OFF	OFF			
sensor short circuit	OFF	OFF	OFF			

Display and Button test (step 8 of test program)

Max. duration: 10 min
Description: check of start delay and options buttons and according LED function

Check of start delay:
1. push start delay button 3 times (=> '0' => '1' => '2') to check segments
2. all LEDs / segments according this button are ON

Check of option buttons:
1. push any option button
2. Corresponding LED is on, all other option LEDs keep their status.